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Life History of the California Condor. Part I.—Finding a Condor's Nest[1]

BY WILLIAM L. FINLEY

PHOTOGRAPHS BY HERMAN T BOHLMAN

IN October of 1895, a pair of California condors (*Gymnogyps californianus*) were seen about one of the canyons of a certain range of mountains in Southern California. A search was made for the home of these birds at the time, but it could not be found. Every year since then, the pair of big birds have been seen about this locality, and many times efforts were made to find the nest, but each time the hunters returned unsuccessful. One year additional evidence was found in the bleached bones and scattered feathers lying in the bed of the canyon. This bird was in all probability the young of that year and was ruthlessly destroyed by the rifle of some wanton wanderer. Last year the pair of old condors and a young bird, hardly able to fly, were seen perched on the limbs of an old dead tree, and the place was marked as this seemed to be definite proof that the home was nearby. But even this apparently definite proof was far from revealing the condor's nest in the rocky crevices and cliffs of the mountain side.

On March 10, 1906, I set out with two companions to make further search for the nest. The most striking feature of this region where the condor lived is the fact that one passes thru the green fields, orchards and vineyards; land that is under the highest cultivation, right up to the beginning of the mountains. At eight o'clock in the morning, we were in the midst of pleasant homes and gardens, and two hours later we seemed to be almost in a different world; it seemed miles out of civilization. We were in the roughest, wildest place without an indication of human habitation. Wild indeed, because this was the natural haunt of the California condor. The contrast is striking, for when we at last reached the knife-edge of one of the ridges, which broke abruptly off a hundred feet on one side and about three hundred on the other to the bed of the gulch, we had a view out the

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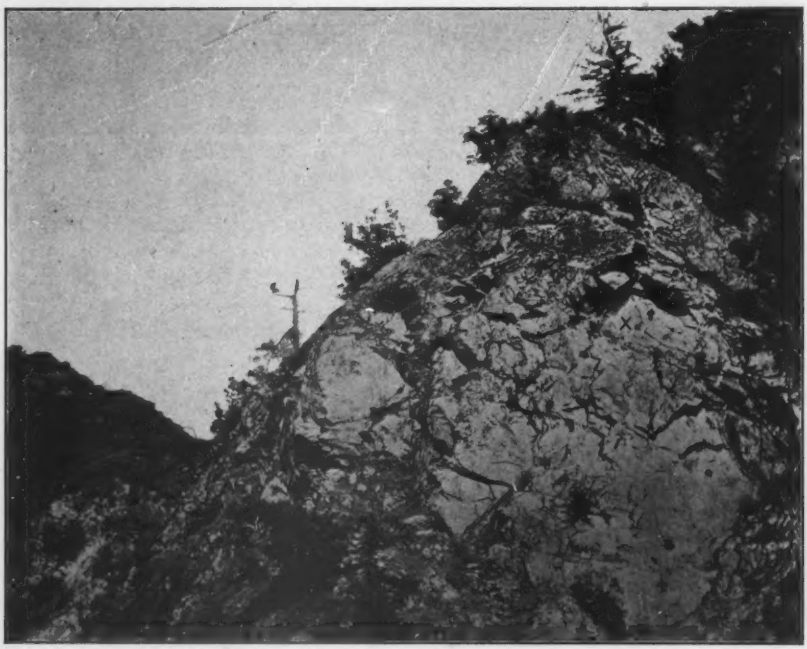
mouth of the canyon to the spread-out green fields of the settled region just beyond the border of this rocky fastness.

These mountains are different from those where our work has led us before. From a distance they are deceiving, and one does not get the faintest conception of what they are or what they contain. They seem to be covered with only a scrubby growth, but in reality the canyons are heavily wooded. There is hardly an indication of the canyons and gorges from the outside, but once you enter, you are surrounded by the rock walls that stretch up for hundreds of feet. From the bed of the canyon one can see little and get little idea of where he is going. In many places, the water cuts thru the narrow gorge of rock and falls into deep pools be-

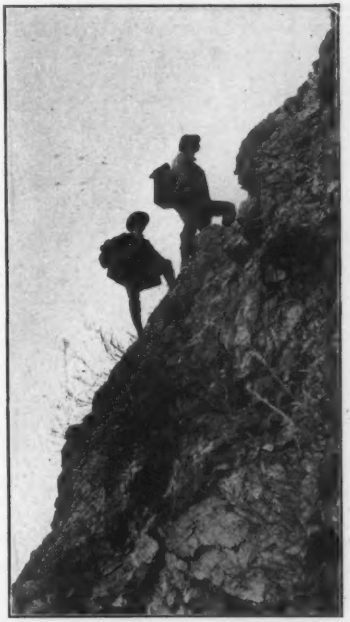


GENERAL VIEW SHOWING LOCATION OF THE CONDOR'S NEST. THIS WAS SITUATED IN SMALL CAVE BEHIND ROCK ABOVE THE MARK X. OLD CONDOR IS SEEN JUST ALIGHTING ON DEAD TREE. PHOTO TAKEN FROM OPPOSITE SIDE OF CANYON FROM NESTING SITE

yond which one cannot go except by scaling the mountain side far above. From the trail three hundred feet above the rocky, boiling stream, we got the best idea of the mountains. In places, the canyon forms a complete S, with the middle of the S but a short distance from the end of the letter but several hundred feet lower down. It looked as if Nature was in a mighty upheaval when these mountains were formed; for the rock has been piled up for a thousand feet, and for ages past the elements have done their best to cut into, crumble and level these huge masses of stone.

Following the trail for several miles along the canyon we came to the place where the great birds were last seen. From this point, we had a splendid lookout up and down the ravine. For some time we watched and scanned the mountain

sides with our field-glass, but saw no signs of condors. Then the rest of the party went back on the trail a way and clambered down to the creek along which they ascended to a pocket in the side of the cliff opposite, that seemed to be climbable. They investigated several likely-looking places. On up the steep side they climbed till several hundred feet above the bed of the stream, while I kept vigil with the glasses. After hunting for an hour, no trace of condors could be found. Then, while we were all in good position to watch, according to agreement, I fired three shots from my revolver to see if the bird could be scared from the nest which we were sure was somewhere in the locality. A few moments later, we all caught sight of a condor just alighting on a ridge quite a way up the canyon; we all saw her, but no one knew from which direction she came. I watched her for half an hour thru the glasses as she preened her feathers and stretched. This looked encouraging, as the actions were those of a sitting bird. Then suddenly, she took wing and sailed up the gorge out of sight. Thinking she had started for her nest, I hurried back down the mountain side, scrambling over bowlders, sliding, and hanging to bushes, till I reached the creek, and then worked on up for half a mile till my progress was stopped by a water-fall cutting down thru two walls of rock. In the meantime my companions from their side had watched the condor as she flew over and lighted on a high cliff, then back to her former perch, and up the canyon again to the old tree on the cliff side where the young bird was seen last year. From their outlook up the mountain side, they saw her jump down to a lower perch, where she was hidden from view. After waiting half an hour, since she did not appear again, they descended the steep slope and we ate a hurried lunch and planned a further search.



FINLEY AND BOHLMAN ON THEIR WAY TO THE CONDOR'S NEST, GIVING AN IDEA OF THE ROUGHNESS OF THE COUNTRY

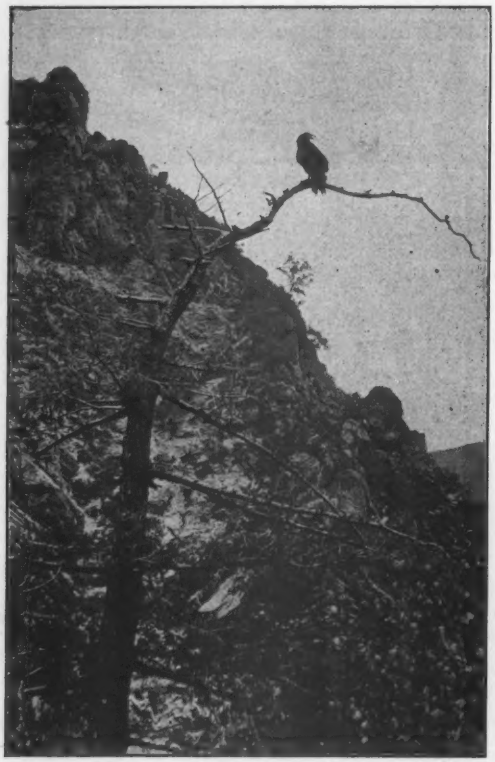
We all knew just about where the old condor had disappeared, but the steep side of the mountain was rough and impassable in places. Further search revealed nothing along the ledges and among the bowlders. But we still had the last and surest resort, the sound of the old pistol, that roared like a battery of cannons as the echoes reverberated from cliff to cliff.

Climbing up the opposite slope to a ledge across from where the old bird disappeared, I had a complete survey of the place where the nest was supposed to be. Both sides of the gorge were steep and not too far apart for us to yell back and forth, but for all our calling no condor appeared.

Finally, three more shots were fired a few seconds apart, and after the third, the old condor suddenly appeared on a rock only twenty feet above the head of one of my companions. The hunter instinctively crawled behind a tree as the big bird sat there looking as if she were about to pitch into the intruder, who was yelling like mad at finding the nest. I myself was making the canyon resound with whoops

as I saw the old condor with her feathers ruffled, sitting at the mouth of her cave, and watched the whole performance thru my fieldglass.

Down the mountain I went in haste that was dangerous and might have resulted in disaster had I not caught in some bushes. At the bottom I met the third member of the party, who was as excited as myself. When we reached the tree below the nest, we still found the condor watching her human visitor, who was looking out from behind the tree. But at the sight of two more men, with one or two huge wing-sweeps, she jumped over to the perch on the tree-top thirty feet away, and then after watching us a few minutes, silently and sullenly spread her wings and sailed down the canyon.



THE OLD CONDOR ON ONE OF HIS FAVORITE PERCHES. PHOTO TAKEN WHILE BIRD WAS YAWNING

We climbed to the rock above and found it was a huge bowlder set well into the mountain. Against this was leaning a big stone slab about ten feet high. This left a space about two by six feet and open at each end. This cave was lined with leaves and fine rock and in the middle was one big egg. We thought it was not far from hatching by its glossy surface and the tenacity with which the mother stayed on her nest.

It seemed to be the sound of the pistol that the condor feared, for that alone had made her leave her home. Twice one of the boys crossed above the nest, and we had been yelling back and forth, but she had paid no attention to that.

Even in California where the sun is supposed to shine one gets a rainy spell that will knock out all his calculations for taking bird pictures. And a period of dark, rainy weather is likely to come at the very time it is not wanted. Regardless of the foggy, cloudy weather, we set out one morning about a week later. When we reached the foot of the hills, the fog was thicker than ever and had turned into a drizzling rain. But we shouldered our two cameras, blankets and other equipment that we had taken with the expectation of making a two days' trip.

When we came to the brink of the canyon and descended a hundred feet along a steep trail thru the brush, worn out partly by the pouring waters of the recent rain, instead of an almost dry creek-bed that we had found on the first trip, we now had to wade and jump from rock to rock to cross the swift current.

By this time it had begun to rain in earnest; so we stopped and built a fire and ate lunch, hoping it would clear off so we could continue. We waited for two hours, but there was no change in the weather except for the worse, so we gathered our traps and set out for home thirty-five miles away.

The weather continued stormy and our next trip to the condor's nest was postponed till March 23. A heavy sea-fog hung low over the country, but we had hopes that there was blue sky beyond. As we went on the fog did not clear, and we seemed likely to have a day similar to our last trip. We finally stowed away part of our equipment in the brush and with one camera and some lunch, started up the creek, which was still high.

The last two storms had carried down great masses of rock and shale from the steep slopes and washed out the trail in some places. In another place a bowlder weighing a ton blocked the path. When we reached the steep ascent up the side of the mountain, the trail was almost obliterated, but just enough was left to follow. It took an hour to reach the top of the ridge.

Following the trail that skirted the mountain side, we reached a place several hundred yards down the canyon from the nest, and then descended to the stream which we crossed several times before reaching the spot below the nest. Here it began to rain and we stopped under a tree for lunch.

At one o'clock it still rained and the trees and bushes were wet. But we were too near the big nest not to try a few pictures even in the rain. Strapping the camera firmly to my back, we began the steep ascent of fifty yards to the cave. Hanging to the roots and bushes and edging from side to side up the rocky surface, we both reached the pocket containing the nest.

NEST AND EGG OF CALIFORNIA CONDOR. SHOWS MATERIAL COMPOSING FLOOR OF NEST-CAVE. PHOTO TAKEN FROM LEDGE OVERHEAD, AND LOOKING DIRECTLY DOWN INTO NEST

When we climbed over where we could look between the rocks and see into the cave, the old bird was on. I went closer and could see her bald head of orange color, and the great black bird still sat on the nest. I climbed up within four feet of her and whistled and yelled till she rose on her feet. She looked so big that I

shrank back at the thought of her pitching in to defend her young, for when she rose, I glanced in and saw a youngster not larger than the egg. His head was bald like his mother's, but baldness did not signify age in this case, altho his head was fleshy-pink in color. He was weak for he could hardly kick, and he

EGG OF CALIFORNIA CONDOR. PHOTO TAKEN IN NEST

seemed to raise his head with difficulty as he cried out in a wheezing, hissing note. Beside him lay the end of the egg from which he had emerged not many hours before. He was not yet dry. He was not even well clothed, for behind his little

CONDOR CHICK PHOTOGRAPHED MARCH 23, 1906, THE NEXT DAY AFTER HATCHING. WHITE DOWN STILL DAMP. HEAD, NECK AND FEET WERE FLESH-COLOR OR PINKISH. WEIGHT LESS THAN ONE POUND

wings, the flesh was bare and his belly was bare, while the rest of his coat was down of pure white.

At first the mother arose and her neck feathers ruffled up in anger. Then as her baby began to squirm, she put her head down and covered him partly with her

bare neck. Then it was evident we could not scare her from her den. But we had to have a picture of this baby bird, the nestling of the largest bird that flies, and one that is so rare in the ornithological world. Crawling over closer where I could look thru the crevice in the rock, I got down within three feet of the mother as she sat hovering her chick. I could almost touch the white on her shoulder and plainly see the blood-red eyes that watched me, and the edging of white on her wing feathers. But she sat still till I reached in with a short stick, when she drew back as if to strike, but I had the advantage of her, for I knew that in that narrow place the big bird was almost helpless. When she arose and stepped back, I gently rolled

THE YOUNG CONDOR AT THE AGE OF FIFTY-FOUR DAYS. PHOTO TAKEN MAY 15, 1906. NO FEATHERS SHOWING YET. WEIGHT ABOUT SEVEN POUNDS

the chick over nearer to me and reached in and took him in my hand. The mother sat in sullen silence.

We immediately set up the camera in the pelting rain and focused it on a sheltered spot just outside the den of the old bird, then placing the chick on the ground took a snap of him. Covering him quickly so as to keep him warm, we tried four more exposures in about the same position. But the darkness of the weather made a slow exposure necessary and the youngster wiggled most of the time. But by that time it suddenly dawned on us that he was getting chilled and I hastily put him back in the nest.

But to my chagrin, the old bird just sat with her head down and paid no atten-

tion to the chick under her nose, who had now grown too weak to even squirm. He seemed nothing more to her than the shell by her side. I knew the chick would die if he were not warmed immediately, so I climbed around to the front door of the cave and tried to make the mother move over and hover her nestling. This would not work so I reached in and got the youngster again and he was chilled thru, and with our cold hands we could give him little warmth. As a last remedy we held him close in to our warm bodies, and after a little while, he began to squirm again as the warmth seemed to revive him.

At that instant, I looked up and saw the male condor soaring above and dropping lower and lower. My heart sank for a moment as I felt like crouching down and crawling under cover. But reaching for my tripod as a weapon of defence, I stood there while the big bird swung around only a few yards above our heads and lit on the perch of the dead pine about forty feet away. He sat there with wings out-stretched and watching us closely. It made us crouch closer behind the bushes to have a bird of such size so near above and threatening to pounce upon us at any moment. But we soon saw that he had no intention of fighting.

OLD CONDOR ON TREE-PERCH NEAR NEST. FEATHERS RUFFLED UP ABOUT NECK IN USUAL ATTITUDE

All the time we were in great doubt as to whether the mother would accept her chick again if he were revived. She sat there all the while with her head down watching thru the crevice. As soon as the young bird revived so he could kick about, I crawled down near the nest and thrust my arm clear in till I almost touched her nose and put the chick down before her. Then I slid back down the rock. It was a moment of intense anxiety for me; if she did not take the chick to her, it meant his death as well as an end to all our dreams of getting a life series of pictures of this rare bird. For an instant she paid no attention to him, but just then he began to stir and wriggle. Her eyes changed from their vacant stare: she suddenly seemed to recognize her nestling, and putting her bill down she drew him gently near, crouching down at the same time and finally drawing him under her breast. We felt very much relieved at this and hurriedly taking our camera, we started back down the mountain leaving the pair of big birds and their nestling.

The rain had continued till everything was soaked. Wading thru the brush, we were soon wet thru and then after the climb up to the trail again, we had the worst part to traverse, for the path was thru the high bushes, each of which held a shower of drops. But we had five plates any one of which, if it were good, would pay for a thirty-five mile trip into the mountains, and better still we had the hope of getting more in the future.

Portland, Oregon.

The Kennicott Screech Owl

BY J. H. BOWLES

THE Kennicott screech owl (*Scops asio kennicotti*) is a tolerably common resident thruout the year in northwestern Washington. It is seldom found in the higher altitudes or in heavily wooded regions, but is most frequently to be met with in river valleys and in the oak-sprinkled prairie country, usually in the immediate vicinity of water.

Exceedingly sociable in their disposition towards mankind, these birds are frequently seen in the cities, and all the nests I have ever examined were but a very short distance from houses. On one occasion at an evening lawn party in the city, one of these owls spent more than half an hour catching what I am positive were angle-worms. He would swoop down onto the lawn and stay for perhaps a minute, returning each time either to one of a small group of maples or to the roof of the house. It was too dark to distingush what he was catching, but he paid no more attention to the people walking near him than an occasional turn of the head, busying himself with poking about in the short grass with his bill.

These birds appear to see perfectly well in the day time, tho before dusk most of their time is spent in the thickets of small firs and maples. When come upon suddenly at such times they eye the intruder vigilantly until he approaches within ten or a dozen feet, and then fly swiftly and silently out of sight.

A bird sitting on heavily incubated eggs always appears to be in a kind of torpor when lifted from the nest, and is certainly the sleepiest looking and acting creature imaginable. She keeps her eyes shut all the time and may be handled with impunity, never struggling or attempting to get away.

If the eggs are fresh, however, her actions are somewhat different, as may be seen from the following notes taken by my brother, Mr. C. W. Bowles, concerning a nest with four partly incubated eggs.

"One bird was sitting in a tree about one hundred and fifty feet away watching my actions closely, but remained perfectly motionless with the exception of its head. The sitting bird, when taken from the nest and tossed into the air, flew without any hesitation to where her mate was sitting. While flying she snapped her beak repeatedly, but neither bird made any noise afterward."

The high-keyed, tremulous hooting cry of these birds is, strangely enough, most often heard during the fall months. In spring and summer, tho repeatedly spending the night in localities where they were tolerably abundant, I have never heard them utter a note of any description.

During the greater part of the year these owls are entirely beneficial, their food consisting mostly of mice. Large beetles are often added, and nearly every small stream shows signs of where an owl has successfully angled for craw-fish, carefully splitting and picking the meat from the shell. After the eggs are hatched, however, the parents are at their wit's end to procure food enough for the hungry babies, and it is at this season only that birds are used in the bill of fare. The northwestern flicker seems to be found especially delectable, tho feathers of the Steller jay, western robin and a few other species are sometimes found in the hole with the young. Curiously enough it is most unusual to find remains of juncos, sparrows or other small-sized birds; and, all things considered, these owls unquestionably do many times as much good as they do harm.

The location chosen for a nesting site is invariably in a clearing; in one case a fir stub standing alone in a city lot was the somewhat unwise selection. The nest

is almost always in a natural cavity of an oak or fir stub, tho an unusually large hole made by a flicker is sometimes used. It is seldom at any great height from the ground, usually from ten to fifteen feet, and is generally only six or eight inches deep. An exception to this was in an oak stub where the entrance was only four feet up, the bottom of the cavity being but three inches above the level of the ground. No nesting material or lining of any kind is used, the eggs being deposited on the decayed wood at the bottom of the hole.

The eggs are laid from the first to the second week in April, and are from two to four in number, four being most commonly found. They are pure white in color, a globular oval in shape, with a smooth, finely granulated and somewhat glossy shell. In size they seem exceedingly large for the size of the bird, altho this is one of our largest screech owls. An average egg is as large as an average egg of the long-eared owl, tho the latter is, of course, a much larger bird. The largest egg in my collection measures 1.65x1.40 inches, the smallest 1.48x1.27 inches, an average egg measuring 1.59x1.35 inches.

After the young are partly grown it is most unusual to find either parent on the nest, which makes it seem very possible that the old birds spend most of the day hunting for food. This I know to be the case with the horned owls of eastern Washington.

The young are generally quite lively when taken from the nest, and sometimes very much on the defensive. Daylight does not seem to bother them in the least, for they stare at the intruder in a most uncompromising manner.

The nesting cavity and the ground around it are kept scrupulously clean from first to last, and only rarely an occasional tell-tale bit of down at the entrance discloses the secret to the bird student.

In Massachusetts the male screech owl almost invariably has a roosting hole for himself not far from the nest occupied by the female. With our northwestern sub-species it is extremely doubtful if this ever occurs; at least my nine years' experience in Washington have shown no evidence to that effect.

Tacoma, Washington.

Nesting of the Red-bellied Hawk

BY C. S. SHARP

THIS west-central part of San Diego county is especially favored by the presence of the red-bellied hawk (*Buteo lineatus elegans*). The birds are not commonly seen near the coast, but in the interior valleys, where the river bottoms are more or less thickly lined with trees and scattering groves, we find them following the rivers up to about the base of the coast range.

In these localities the species is a fairly common resident, seldom appearing in the higher enclosed valleys or in the mountainous regions, and their hunting range lies along the rivers and the adjoining fields and low-lying hills.

The highest elevation at which I have found them is about 1350 feet, where a pair have for many years inhabited an oak grove on the edge of an open mesa. This is at the head of a steep ravine which runs up for a couple of miles from the river some 900 feet below. Both elevation and location, being so far away from the river bottom, are unusual.

They do not appear to be an open country bird like the red-tail but seem to

prefer the shelter of the groves where their shrill scream is a common bird note, particularly during the nesting season. They are the noisiest of all our hawks. The cry is a short snapping bark or scream, repeated again and again, very different from the long drawn out "ku-e-e-e-ah" of the red-tail, and more resembling the cry of the Cooper hawk but easily distinguishable from it.

Unlike the other large hawks the red-bellied does not seek a commanding situation for its nest. It is unusual to find them nesting in isolated trees, and it is very seldom the nest is visible from any great distance as is often the case with the red-tail and Swainson hawks. The preference is for some fairly thick willow and cottonwood grove and they have a great fondness for Eucalyptus groves, making their nests at times on the masses of bark that have sloughed off and collected in some large crotch of the main branches. These nests are, as a rule, very well concealed and only flushing the bird, or the sight of the handsomely barred tail over the edge, gives proof of what is there. This concealment, however, can hardly be considered as deliberate, for beyond the fact of the choice of a thick growing tree or a grove for the location of the nest there is never any attempt at it.

NEST AND EGGS OF RED-BELLIED HAWK IN EUCALYPTUS TREE. PHOTO TAKEN FROM DIRECTLY OVERHEAD

The nest is generally about 50 feet from the ground, the height depending largely on the size of the surrounding trees, and may be an old crow's or hawk's nest remodelled, or an elaborate structure of the bird's own composition. If undisturbed the same nest will often be occupied year after year; but the birds generally have a second or third nest in reserve and will alternate, almost invariably doing so if a first clutch of eggs is taken. Where the gray Spanish moss is convenient to the nesting place a great deal of that is used in the lining and often the long streamers will hang down over the edge giving a very pleasing appearance.

The use of green leaves is a peculiarity of this species and it is very seldom one finds a nest finished or containing eggs where fresh leaves are not in evidence. These are generally of the same tree in which the nest is situated and are renewed from time to time until the eggs are hatched. I have found them in nests with eggs in all stages of incubation. After the young appear the practice is discontinued, the nest soon gets flattened out, and with hungry mouths to feed there is little time—if there is inclination—for the enjoyment of the merely beautiful.

One does not need to look many times into a hawk's nest containing young at dinner-time, which is practically *all* the time, to realize how very great is their economic value.

In this section, where rabbits, squirrels and gophers are plentiful, there are no birds that should be protected more vigorously than the Raptores of all species. Most of the ranch owners appreciate their benefit, but there is always the unwill-

ing-to-learn farmer to whom every hawk is a "hen hawk", and the small boy with a gun to whom every large bird is natural prey, and many are sacrificed needlessly. All hawks among the unknowing have a wholly unfair reputation where poultry is concerned; for the sins of the unjust are visited upon them all. One handsome *B. lineatus elegans* is as slight a danger to a chicken yard as any Raptor we have; I might almost say as any *bird* we have. Nearly every nest of the species that I know of is within a few hundred yards of some barn yard and it is very, very seldom the birds exact tribute.

One of my friends in San Pasqual Valley, where these hawks are common, told me the red-bellied and red-tailed hawks had nested on his ranch as long as he could remember (he is a very old resident) and it was very seldom they would touch a chicken tho the latter were running free all the time. The young hawk in the photo was from a nest in a tree in his barn yard, not over 150 feet from the barn itself. The milk house was under the next tree in the small grove of big Eucalyptus trees at one side of and partly in the corral, the fence of which shows in the photo. The chicken house is between the milk house and the barn. All the time I was at the nest some 200 chickens of all ages and sizes were working around the barn yard, in the corral and out on the stubble beyond, many of them fully 200 yards from shelter but they never even gave a warning cry when the old hawk flew from the nest across the yard.

YOUNG RED-BELLIED HAWK

The young birds were at an age when their demands for food must have been very great, and there was only one parent bird to look after them, the male bird having been shot a few weeks before by a new hired man. One would think that yellow-legged chickens so convenient would prove too great an attraction to the doubly worked mother but they were never touched. The young hawks would have flown in a couple of weeks. The down had nearly disappeared and flight and tail feathers were about two-thirds developed. In appearance they resembled the female bird, the brighter plumage of the male not developing until maturity.

One of the young was very cross when I went up to the nest, screaming and striking with her wings, and when moved from a perilous position near the edge of the nest rolled over on her back and tried to scratch. Her bad temper brought her to a sad ending for she managed to fall out of the nest to the ground, some 50 feet or more, landing heavily and when I got to her she was only a poor little bunch of feathers, and would scream no more. She had been well cared for. Dissection showed a full stomach and crop—a field mouse entire, parts of skulls of two more and a various assortment of small bones and fur and part of the foot of some small bird which I could not identify. The nest contained part of a brush rabbit and some squirrel fur. Her nest mate was quite tame, perched confidingly on my

wrist, and took my petting quite as a matter of course. I left him (presumably him) in the willows by the river calling for his ma, and that she attended to his wants was quite evident: for a few weeks later he came up over the hill and made a fruitless dash for a squirrel in my corral—frightening, but not harming, my chickens—perched on a fence post for a while and then flew away.

On July 4, 1906, I went up to another nest which contained two young birds. They were stuffed about as full as they could hold and were so sleepy they could hardly hold their heads up. They would nestle confidingly in my hand with a little plaintive chirp and when put back in the nest the heads would go down and eyes close at once. There was part of a large lizard (Gerrhonotus) in the nest and their crops were much distended.

These birds were covered with a smoky yellowish down with slight reddish tinge on head and could not have been more than a few days from the shell. This was the latest nesting date of my experience and the eggs must have been produced about the first week in June.

This same nest held two fresh eggs on March 6, 1904, giving this pair of birds the earliest as well as the latest nesting dates of which I have knowledge. The usual nesting date is between the first and the middle of April. One set is the rule when undisturbed; but if the first clutch is taken a second will always be laid, the birds never going very far from the first nest. The raptorial fondness for a chosen range is very great in this species. Taking the eggs seems to trouble them very little and only the destruction of both birds seems to be able to accomplish their removal.

Since 1898 I have had good opportunity for observing an isolated pair. These birds have occupied six different nests—all in Eucalyptus trees—either in groves or as shade trees on sides of the road, the extremes being about a mile apart. Every year but one they have been levied on for one set of eggs. On one year only was a second set taken from them. After the removal of the first clutch the birds have gone to the nearest nest—generally to a nest in the same grove and only a few rods away and have occupied it for a second, never going from one extreme limit of their range to the other.

One nest was for three years occupied first by a pair of Pacific horned owls. In 1899 I found the hawk on the nest which held two fresh eggs, and two young owls were in the branches of the next tree. As that was then the only nest in the grove it looked as if there had been a rather hasty eviction. In another nest of this pair in 1898 I found three eggs of the hawk and one of the long-eared owl.

These nests were in a long branch valley separated from my place by a hill which rises some 200 feet above my house and then drops rather steeply for 500 feet or more to the valley below. In many years residence I have very seldom seen a red-bellied hawk near my place, tho only about a mile away from their nesting range. A few miles away, however, where the lower valley runs up almost to the head of the Escondido Valley thru a long unwooded ravine the birds are very frequently seen, which would seem to show their tendency to hunt the canyons and low foot hills rather than the higher hills and more open country.

The eggs of the red-bellied hawk show the same variations in color and markings that one finds in other Raptores, running thru the usual gamut of spots, splashes and blotches of various shades of reddish brown to very heavily marked specimens. Occasionally one will find an egg wholly unmarked. As a rule they are very handsome, and in series compare very favorably with the eggs of any of the Raptores, few indeed equalling them in beauty.

The usual nest complement is 3, tho 2 is quite as common. Sets of 4 are rare.

This season (1906) has been remarkable for large sets. Out of 10 sets observed in this locality 5 have been of 4 eggs, 3 of 3 and 2 of 2 eggs, all being first sets except 1 of 3 and 1 of 2. Two sets of 3 each were taken by Mr. B. Carpenter from the same nest, which is unusual, evidently the product of the same birds. If undisturbed the first of the two sets would undoubtedly have been 4 eggs instead of 3, as in the second set taken a short time later one egg was very much more advanced in incubation than the others. In one set of 4 one egg is very much smaller than the rest and is unmarked.

Escondido, Cal.

The Oberholser Vireo

BY JOSEPH GRINNELL

IN THE CONDOR for September, 1905, pages 142 and 143, Dr. L. B. Bishop described a new race of the Hutton vireo, naming it *Vireo huttoni oberholseri*. I must confess that I very much doubted the existence of any such race. This impression was based wholly upon "geographical reasoning," for I had never seen any Hutton vireos from San Diego County, whence came the type of Bishop's *V. h. oberholseri*. I had closely compared my Pasadena series in various plumages with specimens from the vicinity of Monterey, the type locality of *V. h. huttoni*, without detecting any decided phylogenetic differences; and I reasoned that the very short distance, 130 miles, and general faunal similarity precluded the existence of another distinct subspecies in San Diego County. That good evidence is now at hand proving to my own satisfaction the existence of a race in southern California, differing appreciably from that found around Pasadena and northward, only goes to show that one must not depend too much on "geographical reasoning"; it *may* be at fault under the best of circumstances.

I have before me a male vireo taken at Escondido, San Diego County, California, March 27, 1906, which shows the precise characters pointed out by Dr. Bishop in his description of *V. h. oberholseri*. Among my series of 47 skins of *V. h. huttoni* taken from Los Angeles County to Siskiyou County there is not one from which this specimen is not easily distinguishable. It is more leaden-hued instead of greenish dorsally, and ashier ventrally. Pasadena birds show a very slight tendency in this direction as compared with Monterey specimens so that intergradation is probable.

I am indebted to Mr. James Dixon for the privilege of examining this bird and also a nest and set of three fresh eggs taken with it. A description of these latter is apropos. The nest was located fifteen feet from the ground in the upper foliage of a small live oak growing on a hillside about 150 yards from the big reservoir near Escondido. The nest is very bulky, being composed externally of a prodigious quantity of a pale-green fibrous lichen, which is the material invariably chosen for outside lining by the Hutton vireo, according to my experience. This material is in greater quantity and looser texture than is ordinarily the case with the Hutton vireo. As usual the nest is suspended by opposite rims from a V-shaped forking of twigs and surrounded by leaves and staminate flowers of the oak. The lining is of fine round grasses and bits of plant down. The nest is 1⅝ inches in internal diameter, by 1½ inches in inside depth; externally 3½ by 3

inches. The eggs are ovate in shape, clear white in ground color, with a wreath about the large end of each of rather bold spottings of chestnut, hazel and vinaceous-cinnamon. These markings are more distinct, and therefore more conspicuous, than in any eggs of *V. h. huttoni* I have ever seen, tho this may not necessarily be a subspecific trait. The eggs measure, in hundredths of an inch, .70x.53, .70x.53, and .69x.54.

I find no difficulties in the way of recognizing three forms of the Hutton vireo in California; namely: *Vireo huttoni huttoni* CASSIN, which is the form locally common west of the Sierras from Redlands (*fide* Bishop, *l. c.*) to the Siskiyou Mountains at the extreme northern border of the State (See ANDERSON and GRINNELL, Proc. Ac. Nat. Sc. Phila., Jan. 1903, page 12); *Vireo huttoni oberholseri* BISHOP, so far definitely determined only from Witch Creek and Escondido, San Diego County; and *Vireo mailliardorum* GRINNELL, from Santa Cruz Island (CONDOR V, November 1903, page 157).

Throop Polytechnic Institute,
Pasadena, California.

Observations on the Notes and Ways of Two Western Vireos

BY ANNA HEAD

TO the readers of THE CONDOR who enjoyed Mr. Finley's beautifully illustrated article on the Cassin and the warbling vireos in the May, 1903, number, a few stray notes on points about the details of their domestic life may not be without interest.

My first nest of *Vireo gilvus swainsoni* was shown me by the father, whose pretty habit of singing constantly in the neighborhood of the nest, while doubtless encouraging to his patient wife, is really dangerous to the safety of the family. There was a tall pear tree just out of bloom, which shaded my cabin. Here I found the dainty structure, one of the prettiest nests I have ever seen, not excepting that of the Anna hummer. The bird had carefully matched the pale greenish white coloration of the under side of the young pear leaves, weaving into the very open fiber of the nest bits of lichen and the greenish hanging moss which thrives in the moist air of Mendocino County. It was very deep and narrow, almost like an oriole's, and hung from the twigs near the end of a branch about fifteen feet from the ground. When the female flew off, the male came and chased her on again with harsh scolding notes. They also have a very soft, confidential note that sounds like "prit-prit." When the female is sitting and hears the male approach, she gives a low but harsh sound like "ca-a-a-a." This is a good sign to find a nest by, but it cannot be heard unless one happens to be quite near. The male, when approaching, utters a rapid sputtering or pattering note, very different from his true song, which is a warble consisting of three accents, with short notes interspersed, and ending in a cheerful rising inflection.

I watched another nest which swung only about six feet up in an alder, and here I found that both male and female shared in the duties of incubation. The female would raise her head prettily and listen as the song of the male came nearer, but only slip off when he was ready to take her place. The bough swayed so that it seemed that the eggs would roll out; but I suppose the loose, elastic structure of the nest held them in.

The song of the Cassin vireo (*Vireo solitarius cassini*) is far more striking, tho not so continuously uttered. It approaches more nearly to articulate human words than that of any bird I know. A series of emphatic phrases, each of from one to three syllables are uttered alternately with the rising or falling inflection, and separated by a distinct pause. If one had any hope of really guessing "the mind of the bright-eyed bird," it would not be hard to translate this song into human words. At least it seemed to me that once, when a round-eyed little fellow clad in gray came to offer his advice to a pair of agitated grosbeaks, who were distressed about my presence, he must have meant to use different words from when, in early spring, he was excitedly following a coy female from twig to twig, and pouring his passionate declaration into her unwilling ear.

I will venture to give a few of the phrases which he seemed to me to utter on this first occasion, as they may suggest the song to some one who is familiar with it, but does not know the little pale greenish bird from whose throat it comes. "Who are you?" he seemed to say to the intruder; "Watch out!" "Misery!" "Phew." This last monosyllable, in a low, rich voice, occurs at rather rare intervals, and seems to mean a great deal. Often another bird in the distance may be heard, answering between these phrases, and using the same series of inflections. The song carries a long way, and a dialogue like this, between two little householders on opposite sides of the canyon seems to give them great satisfaction.

Besides this note they have a soft warble, not often heard (meant only for the ear of one) and evidently expressive of extreme happiness, tho not so musical as the warble of *Vireo gilvus swainsoni*. By following this note I found on May 10, 1903, a partly finished nest in a small white oak, which has much the same drooping habit as the eastern elm, and so offers suitable nesting sites for this bird. While I watched, the female alone carried material and built, but the male showed no lack of interest. While his mate was away seeking material, he kept a sharp watch and drove away all unwelcome bird visitors. When she was seen rapidly approaching, he burst into a flood of song and flew with her to the nest, where he watched her labors with the greatest excitement.

The outer layer of the nest was complete and was composed of large tufts of white tissue paper, bits of white string and many silky spider's cocoons woven together with a little bark fiber. It was about ten feet up, and was larger in diameter and much shallower than that of the warbling vireo in the pear tree. The female brought fine bleached grasses and always went into the nest with them, to adjust them as lining. Then she would reach over the rim and draw out bits of spider silk, which she would wrap about the supporting twig and tuck down among the grasses. The female only uttered a scolding note which sounded like "zee—tsip, tsip, tsip," the first syllable given long and with emphasis, the last rapidly.

One morning there had been some excitement, and numbers of scolding birds of all kinds were heard, in the neighborhood, as I approached. It took half an hour for the female to quiet down enough to begin working, tho twice the male went to the nest tree and sang a sort of coaxing call. Finally when she came near he swelled out his breast and swayed from side to side, seeming to exert all his eloquence to reassure her, but she only scolded and flew away.

The male shares in incubation and even sings on the nest. At Lierley's, Mendocino County, these birds were very common, apparently more so than the warbling vireo, but the higher I went in the Sierras the less common in proportion the Cassin seemed to be. There was hardly a willow or alder thicket near Tahoe without the cheery song of the warbling vireo.

Berkeley, Cal.

The Southern California Clapper Rail Breeding on Fresh Water

BY G. WILLETT

SO far as I know the Southern California clapper rail (*Rallus levipes*) has been heretofore considered to inhabit only the salt marshes of the coast. I was therefore much surprised to flush a clapper rail from a small bunch of reeds on the edge of Nigger Slough, Los Angeles County, on May 29, 1906. On examining the bunch of reeds, which were growing in about 3 inches of water, I discovered a nest containing 3 fresh eggs undoubtedly of this species.

I left them and did not return until the evening of June 14. Approaching the nest carefully I succeeded in getting within about 8 feet of it before the bird flushed. She floundered thru the grass for about 30 feet and then took wing flying across the slough and was not again seen.

The nest contained nine eggs of which eight were about two-thirds incubated while the other was fresh or infertile. The nest and eggs, which are now in my collection, are typical of the species. The nest is a very loose affair, the foundation being composed of decayed tules and reeds and the upper part, containing the cavity, of broken bits of tule stalks. It measures 11 by 7 inches on the outside, with the cavity 5 by ½ inches.

The eggs are creamy white spotted and blotched with umber and lavender, principally around the large end, the lavender markings having the appearance of being beneath the surface of the shell. The eggs measure: 1.57x1.15; 1.56x1.16; 1.61x1.14; 1.58x1.12; 1.61x1.14; 1.60x1.12; 1.59x1.15; 1.58x1.13; and 1.61x1.14.

Mr. O. W. Howard informs me that he has seen the clapper rail at Nigger Slough previously. I would like to know whether anyone else has found this species breeding on fresh water, or if this case may be regarded as exceptional.

Los Angeles, Cal.

Up the Yellowstone on a Pinto

BY GERARD ALAN ABBOTT

DURING my oological pursuits the shore-birds have always proved most fascinating. The prolonged, but extensive migrations, the deception displayed while nidification is in progress, and the unlimited variation of their exquisitely-marked eggs are notable characteristics.

Having become intimately acquainted with the Wilson phalarope, Bartramian sandpiper, and American woodcock, I cherished a desire to meet the long-billed curlew, a king among waders, in his natural elements.

Two other species, the magnificent ferruginous rough-leg and the sage-cock, prince of the grouse tribe, were of unusual interest to me. With visions of this nature I was lured to the foothills along the Yellowstone River, in Montana.

On the morning of May 18, 1906, I left camp, astride a pinto pony, and headed for Valley Creek. Curlews were whistling over the grassy slopes and the western meadow and desert horned larks abounded everywhere.

The season had been dry and the vegetation was short and stunted. I had no difficulty (from my elevated position on the pinto) in detecting nests of both larks, as the parent birds skulked from their treasures.

I descended into the creek bottoms among the willows, where I found my first magpie nests. These birds were seen about every sheep-herder's camp, subsisting on carrion.

After scanning the sides of a distant range thru my field glasses, I ascended the hills in that direction. As my pony was prancing about, a curlew arose ten feet away, and swiftly winged her course low over the prairie, half a mile in absolute silence. I sprang from my saddle and found a handsome fresh set resting with their points together in a slight cavity lined with bits of grass. In the meantime the parent approached from the opposite direction, uttering her distressing notes of alarm.

These eggs are of the dark green type, shaped long and narrow, and quite different from other specimens of "the sicklebill" which I possess.

An hour or two later while riding thru the sage brush, I espied a sage hen squatting under a bush in typical woodcock fashion, trusting by her protective coloration to escape attention. She permitted close inspection before leaving her nest, revealing nine eggs, incubation one-half.

Five miles away several cottonwoods were growing between rocky ledges. As I neared the place a beautiful fawn-colored hawk sailed from a huge nest composed of dead limbs and buffalo chips. An easy climb—and I was looking down on three well-blotched eggs of the ferruginous rough-leg.

It was getting late in the afternoon so I started for the ranch. In a deep gulch between two divides were several tall poplars; two contained nests. On one the head and tail of a Swainson hawk were clearly visible, outlined against the blue sky. The nest held one freshly laid egg, which I left undisturbed.

Camp was reached in time for supper, and tho a trifle saddle-sore, I felt amply rewarded for my first day's work up the Yellowstone.

Chicago, Illinois.

The Bell Sparrow

BY WRIGHT M. PIERCE

THIS little sparrow (*Amphispiza belli*) is very numerous about here, frequenting the brush-covered fields and low foothills. He seems to prefer the low brush, especially that which grows from one to three feet high, tho he is found, but less abundantly, in the higher sage and thicker brush. This sparrow is a resident about here and can be found at any time in his chosen haunts either on a rainy day in January or on a hot sultry one in July.

I have found many nests of this bird and do not consider them difficult to locate. The method I use is to walk along in the low brush until the bird is startled from the nest, or to simply look in bunches of low brush near which I have located a pair of the birds. In this way I have found as many as half a dozen different nests in an afternoon.

The breeding season commences in early April and continues certainly as late as June. It is at its height during the last week of April and in early May. My earliest set was taken on April 6, near Claremont, and contained four eggs, slightly incubated. On May 18, also near Claremont, I found a set of four, incubation advanced.

The nest is generally placed about a foot up in some small bush, usually being

well concealed. The height ranges, however, from four inches to two feet. The nest is composed of weeds and weed stems, which are exactly the color of the bush in which the nest is situated. It is lined with a little hair or, perhaps, a little rabbit fur, cotton, or plant down. The measurements of a nest before me are:—Inside diameter 2 inches; inside depth 1½ inches; outside diameter 2¾ inches; outside depth 3 inches.

The eggs of this species are very prettily marked and show wide variation, some having only a few specks of reddish brown, principally on the larger end, others being marked with large blotches, perhaps all over, but more generally on the larger end only. These blotchings are intermixed with the smaller, finer markings. I have seen some eggs that have only a few markings, but I have never seen any eggs entirely without markings. Out of the numerous sets that I have discovered I have never seen more than four eggs in a nest. This is the usual complement tho we rarely find only three.

Claremont, Cal.

NEWS NOTES

A news note in *Science* for October 26, 1906, announces the death of a condor belonging to the New York Zoological Park and valued at $300. This fine bird had lived healthily in the Park for two years, and the cause of its sudden death remained a mystery until an autopsy was held. It was found that a large rubber band, presumably administered by some visitor, had lodged in the pyloric orifice of the stomach, completely closing it, and arresting the entire process of digestion. Such exasperating occurrences as this have compelled the Zoological Society to forbid the feeding of animals by visitors.

Mr. J. H. Bowles spent the early part of the past summer east of the Cascades, and obtained much new information for his and Mr. Dawson's forthcoming "Birds of Washington."

Lieut. F. B. Eastman is stationed for the winter at Fort Egbert, near Eagle, Alaska. This is 65 degrees north latitude, and yet is in a region of relatively abundant bird-life. We hope Mr. Eastman enjoys his winter's experience among the boreal birds; for they are welcome and sociable acquaintances in that remote region, as we ourselves have reason to know.

The manuscript for Part IV of Ridgway's "Birds of North and Middle America" is completed, and is now in the hands of the government printer. We hope there will be no delay in the publication of this important work.

Malcolm P. Anderson is at last accounts (August 23) collecting with good success on Saghalien Island, north of Japan.

Mr. W. W. Brown has gone to the Cape Region of Lower California, where he will collect in the interests of Mr. John E. Thayer.

Mr. R. C. McGregor continues to explore various small Islands of the Philippine Archipelago. Under date of August 27, he writes that he has just finished Bohol, getting 140 species of birds, where there had been only 55 recorded before.

The *American Bird Magazine* ("American Ornithology"), published by C. K. Reed of Worcester, Mass., has suspended publication owing to difficulties in the way of securing second-class postal rates.

The Bryant collection of mounted hummingbirds, nearly 200 in number,, was purchased by Mr. John E. Thayer, and becomes a part of the Thayer Museum at Lancaster, Mass.

THE CONDOR

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JOSEPH GRINNELL, Editor, - Pasadena
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EDITORIALS

BETTER VERNACULAR NAMES

In view of the fact that there is in preparation a new A. O. U. Checklist of North American Birds, and that this will undoubtedly be the generally accepted authority in matters of nomenclature for the next decade or more, a discussion of certain features is more appropriately in order in advance than later. The A. O. U. Committee on Nomenclature announces itself as open to suggestions and recommendations from anyone anywhere, and these will be given due consideration before final action is taken.

We have not been alone in our advocacy of better *common* or vernacular names for our birds than many of those in use in the old List; and this is the subject we wish to bring up here.

Common names should be chosen from the standpoint of popular convenience as well as more or less of technical propriety. The usefulness of the A. O. U. Checklist would in our minds be decidedly augmented by the following modifications and innovations.

Drop possessives; for instance, Audubon Warbler instead of "Audubon's" Warbler. The merits of this usage have already been discussed, and to our minds thoroly demonstrated by its increasing employment.

Use a nominative form of geographical name instead of an adjectival; for example, Texas Nighthawk instead of "Texan" Nighthawk, California Woodpecker instead of "Californian" Woodpecker. The old List is inconsistent in this respect.

Insert some qualifying term before the name of each bird which has two or more representative races; for example, we have in the old List, "Bluebird," Western Bluebird, Azure Bluebird, etc. But all are *bluebirds*, and the eastern species should be called, say, Eastern Bluebird. So also there should be an Eastern Wood Pewee instead of "Wood Pewee" alone, and so on with a great number of cases.

Change "Partridge" to Quail wherever the former name is used in the old List. We, here in California, never hear of Valley "Partridges"! They are always Valley *Quail;* and the same with the other species.

For similar reasons the term "House Finch" should be replaced by the much more preferable *Linnet;* the "House Finch" of the old List would become Common Linnet; the San Clemente "House Finch" would be known as the San Clemente Linnet, etc. We can see no excuse whatever for retaining "House Finch"; 99 persons out of every 100 who are familiar with Linnets never heard of "House Finches"!

For similar reasons the "American Coot" is far better known as the Mudhen; the latter name should be adopted.

"Leucosticte" should become Rosy Finch, just as it used to be called in earlier literature, this for the sakeof the amateur (possibly others) who doesn't know Greek!

"St." or "Saint" Lucas should be replaced by San Lucas wherever this geographic name is used; for instance, San Lucas Cardinal. Both "St. Lucas" and "Saint Lucas" are hybrid names and incorrect.

Besides the above, for varying reasons we think an improvement would be accomplished by making the following substitutions: Mountain Partridge of the old List should be changed to Painted Quail; Plumed Partridge to Mountian Quail; California Vulture to California Condor; Burrowing Owl to Ground Owl; Arkansas Kingbird to Western Kingbird; Santa Cruz Jay to Santa Cruz Island Jay; Large-billed Sparrow to Large-billed Marsh Sparrow; Gambel's Sparrow to Nuttall Sparrow; Thurber's Junco to Sierra Junco; Forbush's Sparrow to Northwestern Lincoln Sparrow; Louisiana Tanager to Western Tanager; Grinnell's Water-Thrush to Alaska Waterthrush; Macgillivray's Warbler to Tolmie Warbler; Bush-Tit to Pacific Bushtit; Chestnut-backed Chickadee to Chestnut-sided Chickadee; California Chickadee to Marin Chickadee; Barlow's Chickadee to Santa Cruz Chickadee.

Besides the above specified cases there are a good many more which warrant reconsideration. We would urge the desirability of employing the very best vernacular names that can be selected. This selection is not an easy task, and the responsibility devolves upon the A. O. U. Committee on Nomenclature. At best we can't expect them to please everyone. Yet we hanker after names that we can use in our school work and popular literature without the necessity of explaining why we have to use them *wrongly!*

If anyone has serious objections to the above proposed changes, or if he has further suggestions to make, now is the time to speak; and THE CONDOR is a good medium for the

expression of opinion. We invite relevant discussion.—J. G.

IS EGG-COLLECTING JUSTIFIABLE?

In the May-June *Bird-Lore*, 1906, pages 95 to 98, appears an article, entitled "The Amount of Science in Oology", which deserves careful attention from every egg-collector and oologist. The writer, Professor Thomas H. Montgomery of the University of Texas, arraigns oology *as a science* in a very convincing manner. He handles his subject admirably and we heartily agree with him in a good deal of what he says, tho we as heartily dissent from his repeated implication that the bulk of egg-collecting is useless and should be stopped.

A reply by Mr. Robert P. Sharples, as printed in the September-October issue of *Bird-Lore*, pages 169-170, altho it contains some excellent points, still leaves Professor Montgomery with the best of the argument. Several more points have occurred to us, however, which we hereby submit in defense of the collector and student of bird's eggs and nests.

Even in his contention as to the *quantity* of *science* in oology Professor Montgomery is not quite fair. He admits that there is a little, but dwells on the technicality that the term excludes everything but what relates solely to the colors, shapes, sizes and numbers of eggs. This is misleading, for we all now-a-days use the term oology as including everything pertaining to the eggs, nests, nesting places, and nesting habits of our birds.

Then Professor Montgomery proceeds to belittle the value of whatever facts we can accumulate in this field, partly on the grounds that the field is relatively small, and partly because the published results of the study of oology are in the nature of a bare record of numbers, sizes, descriptions of nest structure, etc.; he says this is not science, but merely a possible preparation. For science begins only when laws are established.

What a juggler of words! He seems to have forgotten for the moment that the vast bulk of the work of embryologists, morphologists, and systematists is a "mere cataloging" of the structures of animals and plants. The work of His in embryology is referred to in comparison with the published descriptions and figures of egg-shells and nests; but we must declare that the distinction appears to us only one of subject matter: both are records of structure.

In belittling the importance of the accumulation of hoards of facts, Professor Montgomery makes a grave error. The majority of present-day scientists (tho perhaps we use the term wrongly!), many of them of eminence, content themselves with a simple accumulation of facts; they have constant reason to deplore the premature deduction of laws (tho *that* is where science begins, according to our learned informant!). The cataloging of a vast array of facts is often necessary to the safe establishment of even a single law in nature. As to the different laws determined, who is as yet in a position to judge anything of their relative values?

We will admit that the field of oology appears to be *small* as compared to the field of say, embryology. But it seems hardly needful to say that this in no way militates against the value of each fact recorded in the smaller field. The only difference resulting is in the relative sizes of the two masses of facts. Some of us can accomplish more, by nature of our capacity for work, in a small field than we can in a large one: we can gain a more adequate comprehension of the smaller subject. Should we, whose ability happens to be limited, be debarred from any participation in the contribution to science, simply because we cannot enter the largest field? The field of oology, in its broader sense, will be found extensive enough to occupy the average investigator for some time. And in spite of Professor Montgomery's over-emphasis of the barrenness of oology, it without any violence to meaning involves the accumulation of data on habits, life history and general ecology, as well as on the mere egg-shell.

After all, we cannot bring ourselves to believe that the quantity of science in oology is the only deciding point as to whether or not egg collecting is justifiable. We do not maintain that all collectors pursue the subject with the sole purpose of obtaining knowledge. But we do say that the majority, more or less incidentally perhaps, do obtain a considerable amount of information which becomes sooner or later available to Science.

Besides the scientific aspect of collecting, no matter what its valuation, there is the educational feature so prominent in the development of many individuals. Many an advanced investigator along more important and practical lines received his early training in accuracy and method thru securing and arranging his collection of eggs. We can name at least a dozen eminent men of science who have declared to us that they got their first interest in things of Nature thru collecting birds' eggs. We wonder if Professor Montgomery himself did not get his start in this way, too!

The boy may find far worse play-time employment than in hunting the fields for a new bird, especially when he puts in his spare time at home studying his finds. Which is of most worth, a few bird skins and eggs, or A MAN? The educational value of egg-collecting is to our minds preeminent.

Then there is the recreative phase which is not to be disparaged; and the pleasure to be derived from this pursuit. We must confess that we have gotten more complete satisfaction, in other words *happiness*, out of one vacation trip into the mountains after rare birds and eggs than out of our two years of University work in embryology! The tired business man who takes a week's vacation in the spring, finds in oology a most restful pursuit. The mind-worn school-teacher, and we know several such, forgets all his troubles in a June jaunt into avian haunts. Both take in a few specimens, and about these cluster woodsy memories which serve to refresh an evening hour now and then during the long work-a-day season. There is an esthetic tinge which only one who has "been there" can appreciate.

Because any one person fails to derive pleasure from a certain pursuit, it is not incumbent upon him to decry that pursuit as followed by anyone else, *unless* it involves an infringement of the rights of others. Let us be tolerant of one another's peculiarities.

We know of some very despicable cases of egg-hoggishness. *Some* egg-collecting is absolutely useless from any standpoint, and that sort we condemn. No *reasonable* collector will pursue any of our native animals to the verge of extermination. We believe that moderate collecting will not work diminution in the numbers of any of our birds. We believe in the *temperate* collecting of anything which results in added happiness to the individual, just so no one else is directly inconvenienced thereby. Such an occupation becomes all the more commendable when it results in the addition of reliable information to our sum total of scientific knowledge.—J. G.

RECORD CRITERIA

In Mr. William Brewster's admirable work just published on "The Birds of the Cambridge Region of Massachusetts," we find in the preface a statement of principles which deserve the widest possible recognition by serious bird students. We have ourselves intended to express similar views in these columns. But now that we have them from so eminent an authority, and so distinctly stated, we take the liberty of quoting them verbatim. These sentiments should be taken to heart by the author of every proposed local list or record. Publication of any sort of information intended to be of scientific value is a serious step, and is not to be taken lightly. It is very easy to foist upon the science of ornithology undesirable, not to say erroneous, literature.

Mr. Brewster says:—"My early training and experience have led me to believe that—with certain exceptions about to be specified—the occurrence of birds in localities or regions lying outside their known habitats should not be regarded as definitely established until actual specimens have been taken and afterwards determined by competent authorities. No doubt it is becoming more and more difficult to live up to this rule because of the ever increasing and, in the main, wholesome, popular feeling against the killing of birds for whatever purpose. Nevertheless I cannot admit that mere observation of living birds met with in localities where they do not properly belong, or where they have not been ascertained to occasionally appear, should often be considered as establishing anything more than possible or probable instances of occurrence—according to the weight and character of the evidence.

"Exceptions to the rule may and indeed *should* be made in the cases of species which, like the Turkey Vulture, the Swallow-tailed Kite, and the Cardinal, are easily recognized at a distance and which are reported by persons known to have had previous familiarity with the birds in life. Sight identifications of species somewhat less distinctly characterized than those just mentioned, if made under favorable conditions by observers of long field experience and tried reliability, may also sometimes be accepted with entire confidence. But on no authority, however good, should a mere field observation of any bird that is really difficult to identify, be taken as establishing an important primal record.

"These principles, which, in my opinion, should govern the *makers* as well as compilers of all local records, were formerly endorsed, and also followed in the main, by most ornithologists. Of late they have been frequently disregarded, especially by the younger generations of bird lovers and students. I have endeavored to apply them consistently and firmly—yet at the same time tolerantly—in dealing with the records considered in the present paper. If some of my rulings appear arbitrary, it must be remembered that it is not always possible to explain the reasons which cause one to look askance at the testimony of certain observers while accepting that of others with entire confidence. It goes without saying that personal considerations—whether of friendship or the reverse—should never be allowed to influence the judgment of any writer on scientific subjects, but his personal knowledge of men and their methods not only does but *should* exert such influence. Moreover there is often internal evidence in printed testimony—perhaps no more tangible than that to be gained by what is called 'reading between the lines'—that leads one irresistibly, and, as a rule, quite safely, to adopt conclusions which cannot always be logically justified or consistently explained."—J. G.

WHY SHOULD IT HAVE BEEN PRINTED?

In number 56 of *The Wilson Bulletin* (September, 1906) occurs an article entitled "Common Birds of Whittier, California," which excites our severe criticism. In this article appears a half page of introductory matter in which the author states the list following to have been derived from notes taken between November 7, 1905, and May 7, 1906—a period of seven months. And yet the list is divided into "Residents," "Winter Visitants," "Summer Residents," and "Transients"! The author, by the way, is very evidently an "easterner" visiting southern California for the winter. As far as we know, not a specimen was secured to verify the determinations. The list is the main part of the paper, occupying nearly four pages, and embracing no less than ninety-two species. Only one of these, "Numenius sp?", is queried, and we are led to believe that there can be absolutely no doubt as to the identity of each of the other ninety-one species enumerated. What galls us most is that the list is couched in full scientific form, containing both scientific and common names and hence each species must be quoted in our synonymy. These will tax our printer's supply of question marks!

We have quoted elsewhere Mr. Brewster's remarks regarding records, and these are extremely apropos in the present instance.

The article in question is poorly edited in several particulars; for one thing there are altogether too many typographical errors. We would em-

phasize the great responsibility of the editor of such a publication as *The Wilson Bulletin*, the aim of which we should hope to be to present bona fide ornithology. An editor's duty is to refuse publ cation of valueless articles, or worse, as well as to accept and publish in *proper shape* articles of more or less merit. We feel our own responsibility in these matters and *try* to act accordingly.—J. G.

Minutes of Club Meetings

NORTHERN DIVISION

SEPTEMBER.—The Club met, Sept. 29, 1906, at the residence of Miss Bertha L. Chapman, 404 Walsworth Ave., Oakland, Cal., with eleven members and four visitors present; Vice-President Fisher occupying the chair.

The minutes of the previous meeting were read and approved. In respect to the resolution passed by the Club at the last meeting concerning the donation of a set of the Club publications, with the exception of the first volume of THE CONDOR, to the California Academy of Sciences, Mr. Cohen stated that he had a part of the first volume of THE CONDOR which he would be glad to donate. Mr. Emerson also offered the first two numbers of THE CONDOR.

The order of procedure was reversed and the program taken up before the business.

Mr. F. E. L. Beal gave a very interesting talk on the "Food of Birds." He has been working for five years on California birds alone and brought out in his talk many interesting facts concerning the economic relationships of our birds and also gave something of the methods and accomplishments of his work.

The business of the Club was now taken up and the following propositions for membership were read:

Henry F. Duprey, 919 Morgan St., Santa Rosa, Cal., by J. Grinnell; John E. Thayer, Lancaster, Mass., by J. Grinnell; F. W. Weymouth, 326 Lytton Ave., Palo Alto, Cal., by H. O. Jenkins; Chas. Reining, 601 Webster St., Palo Alto, Cal., by H. O. Jenkins. The following was elected to active membership:

Chas. W. Metz, 323 W. Loucks St., Sheridan, Wyoming.

A motion made by Mr. Emerson to give Mr. Beal a vote of thanks for his instructive talk was seconded and carried.

Dr. F. W. D'Evelyn said a few words in appreciation of Mr. Beal's work and gave some of his own observations concerning feeding habits of birds.

The meeting then adjourned to the dining room where elaborate refreshments were served.

H. O. JENKINS, *Secretary*.

SOUTHERN DIVISION

OUTING MEETING.—Newhall, Cal., May 19-20, 1906. There were present members Morcom, Judson, Lelande, Robertson and Law.

About the first thing noted on getting off the train was a colony of English sparrows which had its home about the station. Little was done on the 19th other than short excursions on foot into the hills back of Newhall. Mr. Judson found a nest of wren-tit with four eggs, and a nest of black-chinned sparrow just ready for eggs; and later in the day Mr. Law found a nest of almost grown young, which Mr. Morcom thoroly identified as being of this species. The nest was discovered thru the anxiety of the parent when one neared the vicinity of the nest.

Taking an early start on the morning of the 20th, the entire party drove west to the high ridge, and leaving the rig, worked up into the mountains. Mr. Lelande found a grown family of spotted owls, securing one adult. He also found several nests of western flycatcher, from nest just completed to nests with young, all built in crevices against the sides of the bank along the stream. Other birds found breeding were: plain tit, Lawrence goldfinch, green-backed goldfinch, lazuli bunting, black-chinned hummer (several nests of each), black-headed grosbeak, Cabanis and Nuttall woodpeckers (young), house finch, black phœbe, junco (young); and in addition, the following were observed: creeper, slender-billed nuthatch, white-bellied swallow (entering hole in bank), western bluebird, ash-throated flycatcher, western chipping sparrow, western wood pewee, flicker, Gairdner woodpecker, cliff swallow, Audubon and black-throated gray warblers, sharp-shinned and red-tailed hawks, white-throated swift, blue-fronted and California jays.

J. EUGENE LAW, *Secretary*.

SPECIAL MEETING.—Clerk's Office, City Hall, Los Angeles; Aug. 2, 1906. In the absence of the president, the meeting was called to order by Vice-President Judson, with members Morcom, Lelande, Robertson, Rising, Willett, Richardson, Watson, Milton, Alphonse Jay, and Law present, and Mr. Henry Golish visiting.

On motion duly seconded and carried, the Secretary was instructed to cast the unanimous ballot of the members present electing Mr. Charles E. Cosper to active membership. This formality was complied with.

On motion unanimously carried, the invitation of Mr. O. W. Howard to hold a Special Meeting of the Club at his home, Aug. 30, 1906, was accepted. There being no further business and no program, the balance of the

evening was given up to ornithological chat. Adjourned.

J. EUGENE LAW, *Secretary.*

SPECIAL MEETING.—Residence of O. W. Howard; Aug. 31, 1906. Meeting was called to order by President Howard with members Mor com, Grinnell, Lelande, Clifton, Willett, Ed. Howard, Watson, Rising, Colburn, Williamson, Hanna, Feudge, Taylor, Cosper, and Law present, and Messrs. Sandburg, Tully, Peterson and Harris visiting.

The minutes of the last meeting, Aug. 2, were read and approved.

A letter from Mr. W. Scott Way, Secretary of the Audubon Society was read, calling the attention of the Cooper Club to the killing of a condor at Santa Monica, and to the inadequacy of the fine imposed. Also suggesting that probably the guilty person had suffered no penalty. After thoro discussion, the Secretary was instructed to write Mr. Way that the members of the Cooper Club present at this meeting were strongly in favor of protecting the condor in every way possible, and that while everyone agreed that the $5.00 fine imposed was entirely inadequate to punish the offense committed, that particular case is of course beyond review. In regard to who were the guilty parties in this case, members of our club have satisfied themselves that the fine fell on the guilty party.

This closed the business of the evening, and those present were then ushered into a room filled with ornithological rarities. A large table was completely covered with rare nests *in situ*, with the eggs. Many sets were shown which had never been seen before by any of those present. Among others were nests and eggs of: American avocet n-4, black-necked stilt n-4, n-4, killdeer n-3, n-4, western gull n-3, marsh hawk n-5, n-6, California clapper rail n-8, Virginia rail n-8, American coot n-9, Florida gallinule n-10, burrowing owl n-6, mountain partridge n-9, California partridge n-13, mountain chickadee n-7, California creeper n-6, white-headed woodpecker n-5, Gairdner woodpecker n-3, Louisiana tanager n-4, n-4, Cassin vireo n-4, black-headed grosbeak n-3, hermit warbler n-3, n-4, Audubon warbler n-4, n-5, Macgillivray warbler n-4, pileolated warbler n-4, dusky warbler n-4, western yellowthroat n-3, western golden-crowned kinglet n-4, Townsend solitaire n-1, red-breasted nuthatch n-2, gray flycatcher n-4, n-4, olive-sided flycatcher n-3, n-4, Cassin purple finch n-4, n-5, spurred towhee n-4, green-tailed towhee n-3, n-3, Santa Barbara song sparrow n-4, San Clemente song sparrow n-3, San Clemente Is. Bell sparrow n-3, Lincoln sparrow n-5, thick-billed sparrow n-3, western chipping sparrow n-4, Thurber junco n-4, island horned lark n-4, western meadow lark n-6, red-winged blackbird n-6, bicolored blackbird n-4, lazuli bunting n-3, ruddy duck n-14, fulvous tree duck n-9, cinnamon teal n-11, green-winged teal n-9.

Mr. Howard spent some time telling about each take, giving a very interesting description of some of his experiences. After a thoro examination of specimens another surprise came in the form of refreshments daintily served by Mesdames von Barnweld and Lelande, and Miss Pauline Howard. Every member of the Club will long remember this evening as one of the most enjoyable of bird evenings.

J. EUGENE LAW, *Secretary.*

OCTOBER.—Office of H. J. Lelande, City Hall, Los Angeles. The regular monthly meeting of the Cooper Ornithological Club was called to order by President Howard, Wednesday evening, Oct. 3, 1906, with members Lelande, Morcom, Judson, Zahn, Antonin Jay, Newcombe, Willett and Law present, and Professor Gilbert of Los Angeles High School, visiting.

The minutes of the last meeting were read and approved. The application of C. B. Linton of National City, California, for admission to membership in the Club was proposed by Mr. Robertson and on motion by Mr. Morcom, the application was filed to be brought up for final action at the next regular meeting.

On motion by Mr. Zahn and seconded by Mr. Morcom, Messrs. Lelande and Law were appointed a committee to make arrangements for the outing meeting to be held Oct. 27 and 28 in the vicinity of Newport, California. Adjourned.

J. EUGENE LAW, *Secretary.*

EDITORIAL ANNOUNCEMENT

THE CONDOR during 1907 will continue to publish fresh western ornithology. We would like to make the issues larger, as well as better in quality. Both improvements depend upon Cooper Club members. The appearance of THE CONDOR reflects Club interest. Financial support is a prerequisite to editorial success, but it is not the sole thing we demand. *We must have more articles.* With a membership of over 200 people, twenty-five per cent of whom are making original observations of greater or less extent every year, it seems incredible that so few respond when asked for articles. During the past year we have published every single paper handed us, with the exception of one which was too long, and two more which were too trashy to print. We have now on hand for the first issue of volume IX, the second part of Finley's condor article with 10 superb photos, and a clever magpie article from Warren, besides one or two minor things. These are dandy as far as they go, but aren't half enough for one issue. All you Cooper Club members, limber up your pen-fingers! *Send in articles,* long or short, with or without illustrations. And receive in return the thanks of the editor, and a sense of satisfaction in having contributed to ornithology.

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